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# SYNOPSIS OF THE CALLIPHORINAE OF THE UNITED STATES.

GARRY DE NORD HOUGH, M.D.

*Pollenia*. — Four species of *Pollenia* are recorded: *rudis* Fabr., *vespillo* Fabr., *glabricula* Big., and *obscura* Big. *Rudis* is very common and may be recognized by its brown abdomen, with white pollinose changeable spots. *P. varia* Meig. and *P. depressa* Meig. are small varieties of *rudis*. The description of *P. obscura* Big. applies exactly to many specimens of *rudis*. The abdomen of *vespillo* is shining black (Fig. 1).

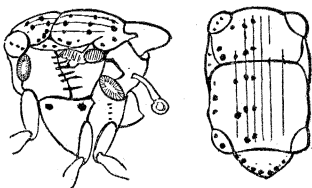


FIG. 1.

*Chrysomyia* (*Compsomyia*). — *C. macellaria* Fabr. — Very common.

The metallic color of the body, the three black stripes on the thorax, and the yellow face make it easily recognizable. In this, as in all the Calliphorinae of metallic color, the shade

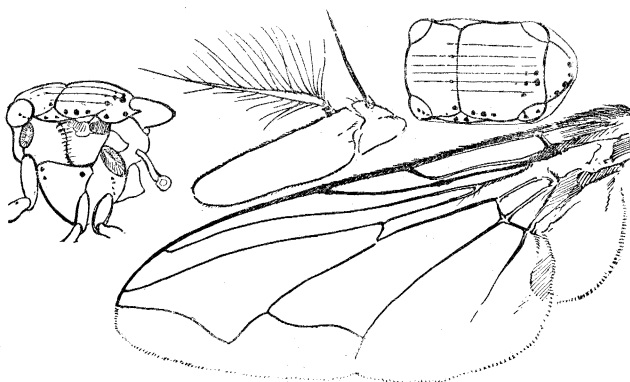


FIG. 2.

varies through violet, green, blue, and copper color, and since the color of the legs, antennae, and palpi also varies, it is not strange that its synonymy is too extensive for this article (Fig. 2).

*C. wheeleri* nov. sp., four males and two females (California).—From the collection of Prof. Wm. M. Wheeler, in whose honor I have named the species. Length 10 to 12 mm. Rather a blackish blue; more opaque than *macellaria*. As compared with its height, the head is broader than in *mac.*; height of bucca, 1.2 to 1.5 mm.; of eye, 1.8 to 2.0 mm. (average in *mac.*

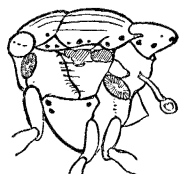
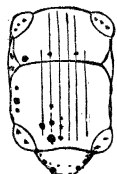


FIG. 3.



bucca, 0.75; eye, 1.9). Front of male linear, of female one-third as wide as head. No orbital bristles; *mac.* has either two or one. Genovetical plates and vitta of female thickly beset with rather coarse, mostly black, hairs, among which

the usual transfrontal bristles can scarcely be made out. Palpi not filiform as in *mac.*, but club-shaped. Base of wing to apices of small basal cells blackish. Squamula thoracalis black, with white border; sq. alaris white, with black border. Thorax and scutel in both sexes thickly beset with long, soft black hairs,

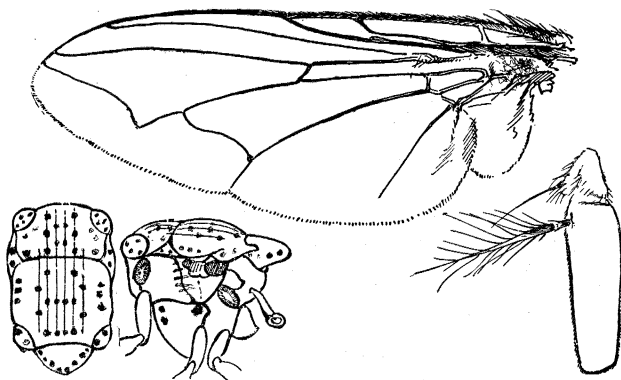


FIG. 4.

much longer than in male *mac.*; while female *mac.* has not hairs, but tiny bristles. Chaetotaxy as in *mac.*, but no visible post-humeral in any specimen, while *mac.* occasionally has a little one laterad the pre-sutural, or one further cephalad, or both (Fig. 3).

*Mesembrinella*.—Two Mexican, but no United States species recorded. Very likely will be found in our extreme south.

*Cynomyia*. — Our common species is probably *C. cadaverina* Desv. (Fig. 4). I described it as *C. americana* in *Ent. News*, May, 1898, and am indebted to Mr. Coquillett for pointing out the synonymy. *C. elongata* Hough (*loc. cit.*) may be distinguished by its more elongate form and the uniform presence of an anterior intra-alar bristle. *C. hirta* Hough, Alaska (*Ent. News*, September, 1898), has a golden yellow face and a long, dense coating of hair on thorax, abdomen, and legs.

All our *Cynomyiæ* have a blackish blue, opaque, faintly striped thorax, a metallic green, blue, or violet abdomen, and black legs.

*Calliphora*. — All our species have reddish palpi, bluish black,

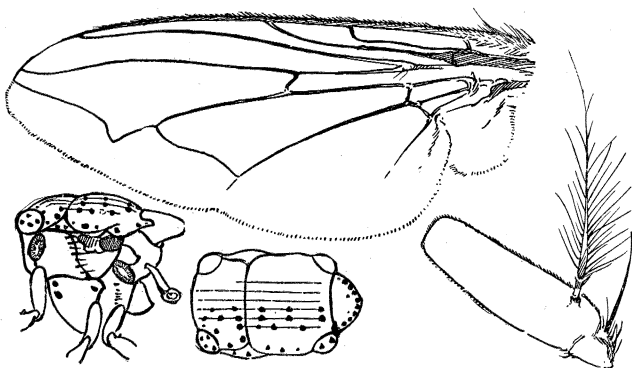


FIG 5.

opaque thorax, metallic blue or green, more or less whitish pollinose abdomen, and black legs. Chaetotaxy alike in all, except that a third posterior intra-alar bristle is regularly present in some species and regularly absent in others.

Bucca black, beard red; 3d post. i.a. rarely present . . . *vomitaria* L.

Bucca brownish or reddish, beard black; 3d post. i.a. rarely present  
*erythrocephala* Meig.

Bucca black, but with suggestions of red on its cephalic half, beard black;  
3d post. i.a. present; front of male one-fifth to one-sixth as wide as the head (in the preceding species not more than one-tenth)

*coloradensis* nov. sp.

Bucca black, beard black; 3d post. i.a. present; front of male not over one-tenth as wide as head, frequently linear . . . *viridescens* Desv.

Bucca black, beard black; 3d post. i.a. absent or minute; front of male at vertex (which is the narrowest part) one-fourth as wide as head; a second large pair of ocellar bristles present . . . *latifrons* nov. sp.

*C. viridescens* Desv. (1830), syn. *violacea* Meig. (1838), Fig. 5. — Prostigma usually black or dark brown. Abdomen in about half the specimens dull green, with pollinose coating instead of blue, as in *erythr.* Strobl has pointed out that this may be a

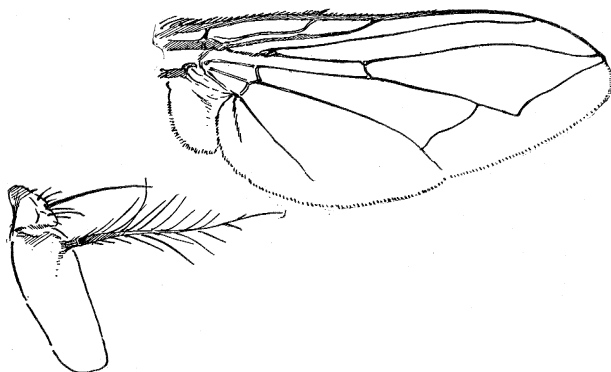


FIG. 6.

melanochroitic form of *erythr.*, but I think that the combination of the color differences with the uniform presence of a 3d post. i.a. proves the specific distinctness; only one out of several hundred specimens examined lacked the 3d post. i.a. Not very common; occurs especially in early spring and late fall.

*C. coloradensis* nov. sp., two males and four females (Colorado, C. F. Baker). — Prostigma black or dark brown. Abdomen dull green, with slight pollinose coating. Were it not for the male front being twice as wide, this might well be considered a connecting link between *erythr.* and *viridescens*.

*C. latifrons* nov. sp. (Fig. 6), eight males and twenty-eight females; Pullman and Seattle, Wash., C. V. Piper; Moscow and Craig's Mt., Idaho, J. M. Aldrich; Santa Barbara, Cal., Dyar; Mexico, O. W. Barrett. — Seven specimens have a minute 3d post. i.a. bristle. The second large pair of ocellar bristles (almost as large as the regularly situated pair) is about 0.05 to 0.1 mm. caudad, and about as much mesad the posterior ocelli. A stout costal spine just basad the end of the auxiliary vein; sometimes this is so appressed as to be seen with difficulty. Abdomen dull bluish green, with some pollinose coating.

I feel very certain of the following synonymy: *aurulans* Desv.,

*compressa* Desv., *mortisequa* Kirby, and *myoidea* Desv. are *Cynomyia* *cadaverina* Desv.; *obscoena* Eschholz is *vomitorea* L.; *lilaea* Walk., and *vicina* Desv. are *erythrocephala* Meig.; *terrae-novae* Macq. is *viridescens* Desv.

*Lucilia*.—All our species are of brilliant metallic colors. The chaetotaxy is invariable for each species, except for an occasional evident deformity, and it differs in the different species only in the number of achrostical bristles.

*Two postacrosticals* (Fig. 7).—Front of male linear, of female one-third as wide as the head; abdomen unicolorous . . . *caesar* L.

Front of male not linear, at narrowest part about one-eighth as wide as the head; front of female about one-fourth as wide as the head; abdomen not unicolorous, first segment and hind margins of second and third blackish, contrasting strongly with the remainder

*pilatei* nov. sp.

*Three postacrosticals*.—Palpi black; front of male very narrow, that of female about one-third as wide as the head; abdomen with two stout marginal macrochaetae on the second abdominal segment

*sylvarum* Meig.

Palpi yellow; front of male varies from one-eighth to one-sixth as wide as the head, that of female about one-third as wide as the head; second abdominal segment without marginal macrochaetae (Fig. 8)

*sericata* Meig.

*L. pilatei* nov. sp., Tifton, Ga. Collected in June, August, September, and October by Mr. G. R. Pilate, in whose honor I

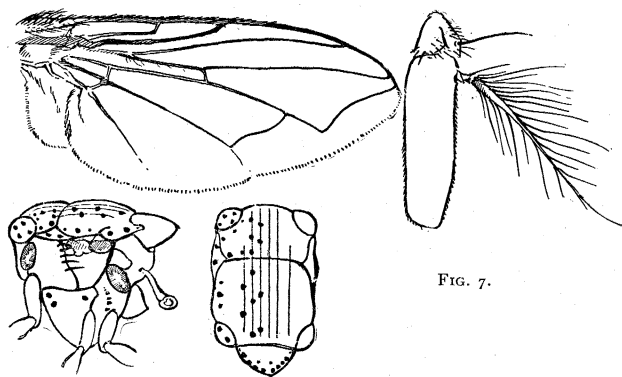


FIG. 7.

name it. Five males and seventeen females. Dorso ventral diameter of head greater, as compared with the transverse

diameter, than in *sericata*. Sides of ventral part of occiput and adjoining part of the bucca with a white beard. Anterior part of thorax by oblique light looks thickly white pollinose.

I have one specimen, male, New Bedford, which I refer to *L. caesar* L., because I can find no structural difference whose squamula thoracalis is blackish brown and whose halteres are whitish at base of peduncle, the rest of the peduncle and the knob being blackish.

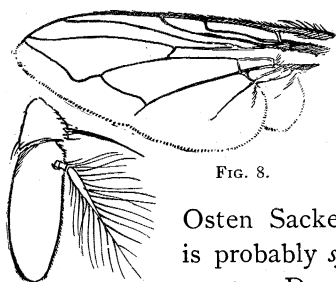


FIG. 8.

I offer the following suggestions as to the synonymy of some of the species of *Lucilia* recorded in

Osten Sacken's Catalog.: *L. brunnicosa* Desv. is probably *sylvarum* Meig.; *carolinensis* Desv., *compar* Desv., and *Heraea* Walk. are *Pseudopyrellia cornicina* Fabr.; *consobrina* Macq., *fraterna* Macq., and *lepida* Desv. are *caesar* L.; *caeruleiviridis* Macq. and *Sayi* Jaen. are *sericata* Meig.; *fulvifacies* Desv., *philadelphica* Desv., *terraenovae* Macq., *mollis* Walk. (?), *rufipalpis* Jaen., and *stigmatalis* Thoms. are all *regina* Meig., as are also the following, described by Bigot in *Bull. Soc. Zool. Fr.*, 1887, — *Somomyia rectinervis*, *S. rufigena*, and *S. rupicola*. *Lucilia regina* Meig. is the type

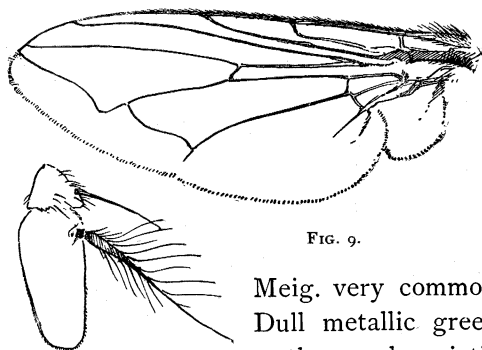


FIG. 9.

I the genus *Phormia* Desv. *L. terraenovae* Desv. is *Phormia groenlandica* Zett., and Desvoidy's name has priority (perhaps this is *P. caerulea* Desv.).

*Phormia*.—*P. regina* Meig. very common everywhere (Fig. 9). Dull metallic green usually, but subject to the usual variations of metallic-colored

Calliphorinae; legs black; prostigma red to yellow; antennae pale brown to black; frontal vitta pale brown to black; palpi red to yellow; squamulae naked, white to yellowish brown. Front of male very narrow, of female about one-third as wide as head. This species seems to be rare in Europe. I am

indebted to Mr. V. von Roeder for a pair which has enabled me to be certain of the identity of the American specimens.

*P. terrae-novae* Desv., Fig. 10 (*Musca groenlandica* Zett.).—Common. Metallic blackish blue, with black legs and blackish

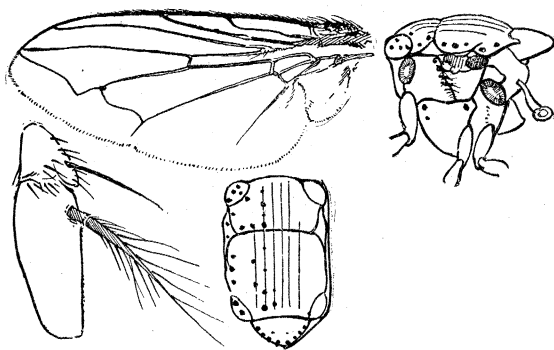


FIG. 10.

squamulae. Squamula alaris hairy on its dorsal surface, *i.e.*, surface which is dorsal when the wings are closed. No distinct achrosticals cephalad the suture; usually four anterior dorso-centrals, of which the first and third are much larger than the

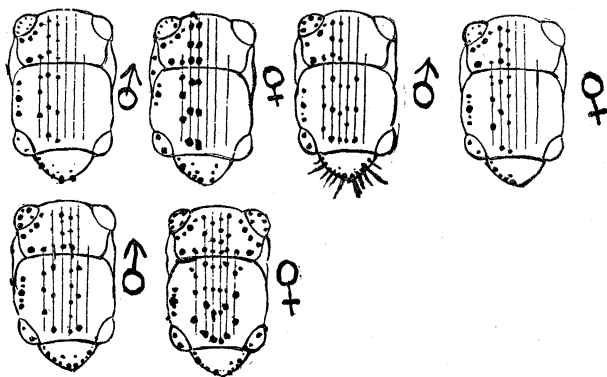


FIG. 11.

others. Front of male about one-eighth, of female one-third as wide as head. Prostigma black, palpi red, antennae black.

*Protocalliphora*.—*P. azurea* Fall. (Fig. 11) and *P. chrysorrhoea* Fall.—Very rare. The males are metallic bluish green, with



black head, antennae, and legs ; palpi yellow at base, and brown or black toward apex, the relative amount of black varying much in different specimens. In *azurea* the antennae are inserted at the middle, in *chrysorrhoea* ventrad the middle of the head ; the front of *azurea* is only half as broad as that of *chrysorrhoea*. The female of *chrysorrhoea* resembles the male, except for the usual sexual differences. The female of *azurea* is golden green, the thorax thickly white pollinose and with three blackish stripes, the abdomen whitish pollinose in certain lights. Front broad. I have compared my American with European specimens from Prof. G. Strobl and Dr. O. Schmiedeknecht.